



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,991	01/23/2001	Gary K. Michelson	101.0101-00000	4198

22882 7590 06/11/2002

MARTIN & FERRARO
14500 AVION PARKWAY
SUITE 300
CHANTILLY, VA 201511101

EXAMINER

PHILOGENE, PEDRO

ART UNIT PAPER NUMBER

3732

DATE MAILED: 06/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/768,991

Applicant(s)

MICHELSON, GARY K.

Examiner

Pedro Philogene

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-148 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-148 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 02 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14, 17-34, 37-52, 55-71, 74-91, 94-109, 112-148 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson et al. (6,066,175) in view of Benzel et al (6,214,005).

With respect to claims 1, 26, 44, 62, 81, 100, Henderson et al disclose a spinal implant (17) for insertion between adjacent vertebral bodies (15) comprising opposed upper and lower surfaces adapted to contact each of the adjacent vertebral bodies, respectively from within the disc space; as best seen in figs. 12, 14; a leading for insertion between the adjacent vertebral bodies; a trailing end opposite the leading end, the trailing end having an exterior surface and an outer perimeter with an upper edge and a lower edge adapted to be oriented toward the adjacent vertebral bodies, respectively, as best seen in Figs. 12-15, a plurality of bone receiving holes (113) in the trailing end.

It is noted that Henderson et al did not teach of at least one of the hole adapted to only partially circumferentially surround a trailing end of a bone screw adapted to be received therein, at least one of the bone screw receiving holes passing through the exterior surface and one of the edges so as to permit the trailing end of the bone screw to protrude beyond the one of the edges; as claimed by applicant. However, in a similar

Art Unit: 3732

art, Benzel et al evidence the use of a plurality of bone screw holes adapted to only partially circumferentially surround a trailing end of a bone screw adapted to be received therein and passing through an edge to permit the trailing of the bone screw to protrude beyond the end of the edge to secure the prosthesis to the associated bone portions.

Therefore, given the teaching of Benzel et al. it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the partially circumferentially screw holes in the device Henderson et al to secure the implant to the associated bone portions.

As to claim 44, the trailing end being adapted to receive at least a portion of a bone screw passing therein that extends beyond the maximum height immediately adjacent thereto, is shown in FIG.8 of Henderson et al.

As to the perimeter having a gap, it is shown by Benzel et al. in Figs.7-10.

With respect to claims 2-14,17-25,26-34,37-43,45-52,55-61,63-71,74-80,82-91,94-99,101-109,112-148, the above combination of references discloses all the limitations as set forth in column 3-13, lines 1-67 of Benzel et al., and in column 3-12, lines 1-67 of Henderson et al.

Claims 15,16,35,36,53,54,72,73,92,93,110,111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson et al. (6,066,175) in view of Benzel et al (6,214,005) in view of Lowery et al (5,364,399).

With respect to the above claims, it is noted that the above combination of references did not teach of a lock for retaining at least one or a plurality of bone screws within an implant, as claimed by applicant. However, in a similar art, Lowery et al

Art Unit: 3732

evidence the use of a lock to engage the heads of the screws and provide a rigid fixation of the screws to the implant.

Therefore, given the teaching of Lowery et al., it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a lock in the device of Henderson/Benzel to engage the heads of the screws and provide a rigid fixation of the screws to the implant.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6,231,610	5-2001	Geisler
6,235,059	5-2001	Benezech et al.
5,776,199	6-1998	Michelson
6,143,032	11-2000	Schafer et al.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro Philogene whose telephone number is (703) 308-2252. The examiner can normally be reached on Monday to Friday 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (703) 308-2696. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3579 for regular communications and (703) 305-3591 for After Final communications.

Art Unit: 3732

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

Pedro Philogene
June 7, 2002



PEDRO PHILOGENE
PRIMARY EXAMINER